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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/775,568

02/10/2004

Norbert Miller

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23413 7590 11/12/2009  
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EXAMINER

SHAPIRO, JEFFERY A

ART UNIT

PAPER NUMBER

3653

NOTIFICATION DATE

DELIVERY MODE

11/12/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/775,568	<b>Applicant(s)</b> MILLER ET AL.	
	<b>Examiner</b> JEFFREY A. SHAPIRO	<b>Art Unit</b> 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,8,9 and 11-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,8,9 and 11-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/28/09 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1, 2, 4-6, 9, 11, 12 and 19-24 are rejected under 35 U.S.C. 103(a) as obvious over Shirasawa (US 5,355,988) in view of Wingate-Hill et al (US 5,111,860).

Regarding **Claims 1, 9, 12, 20 and 23**, Shirasawa discloses providing at least one pair of rollers (35-38 and 47), which separate coins into a singulated flow regardless of their value (see figure 4), said rollers rotating in the same rotational direction, as illustrated in figures 4-8, said rollers rotating in the same direction, i.e., counter-clockwise, to be further processed by a coin processing device (55, 56). The conveyor (30) conveys coins to the rollers (47 and 35) which rotate in the same direction. This separates the coins, which are then transported by conveyor (31) away from said pair of rollers to be further processed by processing device (55, 56), i.e., a sensor as referred to in **Claim 19**. **Note that Shirasawa's rollers are cylindrical and rotate about parallel axes of rotation. See figures 3 and 4 of Shirasawa.**

Regarding the spacing between Shirasawa's rollers, note col. 1, lines 58-66, which states that the spacing "D" is greater than the thickness "T" of the coin, said spacing also being less than twice the thickness "T". Note also that according to MPEP 2115, the limitations regarding the spacing being defined in terms of the thickness of the coins does not act to limit the claims of an apparatus claim, as described in Claims 9 and 11-24

Regarding **Claim 2**, Shirasawa discloses belt (45) that connects both rollers (35 and 47) to a drive mechanism (41 and 42), thereby rotating them at the same rotational speed. See Shirasawa, figures 2 and 5.

Regarding **Claim 4**, Shirasawa discloses rotating the rollers in response to the coin supply through means of microcomputer (43), signal generators (70, 71) and buttons 9-12. See col. 4, line 55-col. 5, line 40.

Regarding **Claim 5**, Shirasawa discloses a collection container (17) where processed coins are stored.

Regarding **Claim 6**, Shirasawa discloses conveying the coins in series from the pair of rollers to processing device (55, 56).

Regarding **Claims 9, 11 and 21**, further note sloped surfaces (31) as well as sloped surfaces (14a, 15a and 61).

Further regarding Claim 9, note that per MPEP 2115, the “material or article worked upon does not limit apparatus claims”. As such, the limitations regarding the thickness of the smallest and largest coins, i.e., the articles being worked on, do not hold patentable weight and are not being considered with respect to Claim 9.

Regarding **Claim 22**, note that Shirasawa discloses a cover (8a) that is removable and located in an area of the means of transportation.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have maintained a space between the rollers that is larger than the thickness of a thickest coin, but less than the thickness of the smallest coin handled by the machine. Note that it is a matter of design choice as to what coins are handled by Shirasawa's machine, based on the requirements of the gaming machine payouts. As an example, if the thickest coin handled was a US quarter, and the smallest was a US

dime, then the spacing would necessarily be greater than the quarter's thickness, but smaller than twice the dime's thickness.

In the alternative, if the machine only accepts one type of coin, such as a quarter, then the thickest and smallest thicknesses will be equal. Thus, in such a case, Applicants' claimed spacing formula would be anticipated by Shirasawa.

Therefore, because it is a matter of design choice as to what the smallest coin handled by the sorter is, or, in the alternative, because Shirasawa discloses that the smallest and largest coin are of equal thicknesses Applicant's claims are considered to read on Shirasawa's claimed spacing formula. Also note that under MPEP 2115, the item upon which the apparatus in an apparatus claim works upon does not limit the apparatus claim. Thus, since coins are the item worked upon by Applicant's apparatus, the limitations regarding defining the thickness or other dimensions of Applicant's claimed device in terms of the coins or coin dimensions does not act to limit Applicant's utility claims, i.e., Claims 8 and 11-24.

Regarding Claims 1 and 9 and the limitation that the rollers rotate in the same direction at different speeds, Shirasawa does not expressly disclose, but Wingate-Hill discloses rotating rollers in the same direction at different speeds for the purpose of allowing various sized logs to be debarked, as mentioned at col. 2, lines 37-43.

Regarding Claim 24, Wingate Hill discloses rollers that have various surfaces and diameters, as illustrated at figure 3. Note also that Shirasawa discloses roller (47) with diameter larger than other rollers (57), as illustrated at figures 3-6 and grooves (48a, b).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have rotated the rollers of Shirasawa in the same direction but at different speeds, as taught by Wingate-Hill, since one ordinarily skilled in the art would have recognized from Wingate's teaching that rotating rollers in the same direction but at different speeds will grip and separate items due to the difference in frictional forces and momentum imparted by faster rollers versus slower rollers. Note that varying diameters also impart higher or lower centrifugal forces and that differing roller surfaces can increase or decrease friction accordingly, as is required.

5. Claims 8, 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirasawa (US 5,355,988) in view of Wingate-Hill et al (US 5,111,860), and further in view of Bruner et al (US 5,988,349).

Shirasawa discloses the apparatus described above.

Regarding **Claims 7 and 13**, Shirasawa does not expressly disclose, but Bruner discloses a bypass return chute placed before a "further processing device" for the purpose of removing coins of incorrect diameter. See Bruner, col. 5, lines 15-25.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have included a return chute placed before the coin processor/sensor for the purpose of removing coins of improper diameter, thus allowing the size of the "rejector" to be reduced. See again, Bruner, col. 5, lines 15-25.

Regarding **Claims 8 and 18**, it would have been obvious to one of ordinary skill to have removed the coins of improper diameter before the rollers because one

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ordinarily skilled would have recognized that such coin races and return chutes as taught by Bruner requires coins to be discriminated by gravity developed by dropping the coins in a vertical direction rather than in a horizontal direction. Once the coins of improper diameter have been removed, the coins of proper diameter drop onto the horizontally displaced coin conveyors to transport them to said rollers and the further coin processor.

6. Claims 14, 16, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirasawa (US 5,355,988) in view of Wingate-Hill et al (US 5,111,860), and further in view of Masse (US 5,713,451).

Shirasawa discloses the coin handling device described above.

Regarding **Claims 14, 16 and 17**, Shirasawa does not expressly disclose, but Masse discloses a coin slot (2) for the insertion of a single coin (A), having a slot closure plate (32), that is selectively closed by solenoid (28). See figures 3 and 4 of Masse.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have incorporated the coin slot and closure plate in Masse.

The suggestion/motivation to do so would have been to secure the coin system by prevent foreign matter from entering the coin apparatus.



7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shirasawa (US 5,355,988) in view of Wingate-Hill et al (US 5,111,860), further in view of Masse (US 5,713,451) and still further in view of Jones et al (US 2003/0127299 A1).

Shirasawa discloses the coin apparatus described previously.

Regarding **Claim 15**, Shirasawa does not expressly disclose, but Jones discloses a coin input area (14) that is generally funnel-shaped. See figure 1 and paragraph 17.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have made Shirasawa's coin input area funnel-shaped, for the purpose of directing the coin to a processing area. See paragraph 17, lines 1-4.

### ***Response to Arguments***

8. Applicant's arguments filed 1/29/09 have been fully considered but they are not persuasive.

### **Legal Authority Relied Upon**

"When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability." *KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1731, 82 USPQ2d at 1396.

"A combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1731, 82 USPQ2d at 1396. Also, "[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either

in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability.” *Id.*

“A combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l v. Teleflex Inc.*, 127 S. Ct. 1731, 82 USPQ2d at 1396.

Note also that the recent decision rendered in *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, 82 USPQ2d 1385 (2007) forecloses the argument that a specific teaching, suggestion or motivation is required to support a finding of obviousness. See recent Board decision *Ex Parte Smith*, --USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007) (citing *KSR*, 82 USPQ2d at 1396) (available at <http://www.uspto.gov/web/offices/dcom/bpai/prec/fd071925.pdf>).

### **Argument**

Applicant asserts that no motivation is found to combine Wingate and Shirasawa.

However, Applicant, in asserting that altering Shirasawa’s coin apparatus to accept logs destroys Shirasawa’s apparatus misses the point. Shirasawa discloses a coin device that incorporates rollers rotating in the same direction, but does not expressly disclose rotating the two rollers at differing speeds.

Wingate is expressly used only for its teaching in a conveying environment using rollers of rotating the rollers at different speeds. One ordinarily skilled in the art would have recognized that rotating the rollers at different speeds would have helped provide gripping forces to the items the rollers are moving, thus making it more likely that one of two stacked coins would have been removed more easily by the difference in speed in

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the same way that the bark on the tree is more likely to be removed when contacting two rollers operating at different speeds. The **concept** and **question answered** is the same as is in Shirasawa's device with respect to the rollers that contact the coins.

Thus, it would have been obvious to one of ordinary skill to have gleaned the teaching of rotating the rollers at different speeds in Shirasawa's coin device for the purpose of imparting force tending to help separate the coins in a coin stack, as Wingate uses the differing speeds of the rollers to help separate bark from the log. No altering of Shirasawa's device otherwise is needed or necessary and the rotation of rollers at different speeds does not destroy Shirasawa's device.

Thus, Applicant's Claims 1-2, 4-6, 8-9 and 11-24 remain rejected as discussed in the rejection above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY A. SHAPIRO whose telephone number is (571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick H. Mackey can be reached on (571)272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey A. Shapiro/  
Primary Examiner, Art Unit 3653

November 8, 2009